



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-1033; Directorate Identifier 2010-NM-266-AD; Amendment 39-17504; AD 2013-13-16]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are superseding airworthiness directive (AD) 2005-07-04 for all Airbus Model A330-200 and -300 series airplanes, and Model A340-200 and -300 series airplanes. AD 2005-07-04 required repetitive inspections to detect discrepancies of the transfer tubes and the collar of the ball nut of the trimmable horizontal stabilizer actuator (THSA), and corrective action if necessary; repetitive inspections for discrepancies of the ball screw assembly, and corrective action if necessary; repetitive greasing of the THSA ball nut, and replacement of the THSA if necessary; and modification or replacement (as applicable) of the ball nut assembly, which ends certain repetitive inspections. This new AD removes certain inspections, revises certain actions, and adds airplanes to the applicability. This AD was prompted by several reports of disconnection of the transfer tube from the ball nut of the THSA. We are issuing this AD to prevent degraded operation of the THSA, which could result in reduced controllability of the airplane.

DATES: This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain other publications listed in this AD as of May 4, 2005 (70 FR 16104, March 30, 2005).

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone (425) 227-1138; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. The NPRM was published in the Federal Register on October 2, 2012 (77 FR 60075), and proposed to supersede AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005).

(AD 2005-07-04 superseded AD 2001-11-09, Amendment 39-12252 (66 FR 31143, June 11, 2001).) The NPRM proposed to correct an unsafe condition for the specified products. The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2010-0192 (corrected), dated October 11, 2010; and EASA Airworthiness Directive 2010-0193 (corrected), dated October 11, 2010; (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

Several cases of transfer tube disconnection from the ball-nut of the trimmable horizontal stabilizer actuator (THSA) part number (P/N) 47172 and 47147-400 were detected on the ground during greasing and maintenance.

This condition is caused by water ingress into the ball-nut resulting in the jamming of the ball transfer circuit when the water freezes.

If the three (independent) ball circuits fail, then the THSA will operate on a fail-safe nut. This nut (which operates without balls) would then jam after several movements on the screw of the THSA.

This degraded operation is not detectable in the cockpit by the crew as long as the THSA does not jam and could damage the ball screw and the fail-safe nut.

To detect this unsafe condition, [Dirección General de Aviación Civil] DGAC France AD F-2001-356 [and F-2001-357] was issued to require repetitive inspections of the transfer tubes and their collars in order to detect at an early stage any distortion or initiation of disconnection.

Further to a new case of transfer tube disconnection, * * * [revised DGAC ADs] required an additional repetitive greasing task with reinforcement of the ball-nut maintenance greasing instructions.

In addition, the electrical flight control computers monitor the operation of the THSA and the jamming of this actuator could be detected and indicated by messages on the maintenance system and on the ECAM [electronic centralized aircraft monitor]. In this case a mandatory inspection of the THSA is required before the next flight.

DGAC France AD F-2002-038 [and F-2002-037] required application of a final fix (related to inspection and greasing task required by DGAC France AD F-2001-356 [and F-2001-357]) for the THSA P/N 47172 by application of Airbus modification 49590/Service Bulletin (SB) A330-27-3085 [or SB A340-27-4089]. It changes the THSA P/N from 47172 to 47172-300.

Later on, DGAC France AD F-2002-414R3 replaced the DGAC AD France F-2001-356R2 and F-2002-038 [and DGAC France AD F2002-415R2 superseded DGAC France ADs F-2001-357R2 and F-2002-037] requiring:

- the repetitive [detailed] inspection [for discrepancies] of all THSA P/N in service [for integrity of the primary and secondary load path and check the Checkable Shear Pins (CSPs)], and
- the lubrication of some THSA P/N, and
- the replacement of THSA P/N 47172, 47147-400 and 47147-2XX/-3XX

[DGAC France AD F-2002-414R3 and F-2002-415R2 correspond to FAA AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005).]

Airbus has later introduced 4 new THSA P/N (47172-500, 47172-510, 47172-520 and 47172-530).

This [EASA] AD retains the requirements of DGAC France AD F-2002-414R3 [and F-2002-415R2], which is superseded, and requires repetitive inspections and lubrications of the new THSA P/N.

The repetitive inspection and lubrication requirements for THSA P/N 47172-520 and 47172-530 shall [also] be included in the next Airworthiness Limitation Section (ALS) Part 4 revision.

* * * * *

Corrective actions include replacing the THSA with a new THSA if cracks, dents, or corrosion are found, or if the feeler gage has failed at any of the four gaps. Other corrective action includes using a method approved by the FAA or the EASA (or its delegated agent) for a finding of metallic debris, loose nut, damaged or missing lock washers, pins and parts, or incorrect installation of items. AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005), required repetitive inspections for discrepancies. This AD requires, for certain airplanes, repetitive inspections for the integrity of the primary and secondary load path, and the CSPs. The unsafe condition is the degraded operation of the THSA, which could result in reduced controllability of the airplane. You may obtain further information by examining the MCAI in the AD docket.

Comments

We gave the public the opportunity to participate in developing this AD. We considered the comments received.

Request to Use Later Document Revision

Delta Airlines (Delta) requested that paragraph (j)(2) of the NPRM (77 FR 60075, October 2, 2012) refer to Airbus A330 Airworthiness Limitations Section (ALS) Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011; instead of Revision 02, dated December 16, 2009. Delta stated that Revision 03 of that ALS specifies the 1,000 flight-hour lubrication threshold and repetitive interval that are

specified in paragraph (j)(2) of the NPRM, whereas Revision 02 of this ALS specifies 700 flight hours for the lubrication threshold and repetitive interval.

We agree that Airbus A330 Airworthiness Limitations Section (ALS) Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011, correctly specifies the lubrication threshold and repetitive interval. We have changed paragraph (j)(2) of this AD accordingly. In addition, we have changed paragraph (j)(2) of this AD to reference Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011; and Revision 03, dated November 15, 2012; for the same reason.

Request to Change Wording

Delta requested that we change the wording in paragraph (l) of the NPRM (77 FR 60075, October 2, 2012), which states “For airplanes identified in paragraph (k) of this AD.” The commenter asked that the wording “identified in” be replaced with “affected by.” The commenter provided no reason for the change.

We disagree to change the wording in paragraph (n) in this AD (identified as paragraph (l) in the NPRM (77 FR 60075, October 2, 2012)) as requested by the commenter. However, we have moved the content of paragraphs (k)(1), (k)(2), and (k)(3) of the NPRM to new paragraph (l) in this AD to clarify the actions and affected airplanes. We have also moved the content of paragraph (k)(6) of the NPRM to new paragraph (m) of this AD, and re-identified succeeding paragraphs accordingly. Finally, in paragraph (n) of this AD, we revised the wording to describe the affected airplanes.

Request to Include Additional Part Number

Delta requested that we include THSA P/N 47172-520 and P/N “47127-530” in paragraph (m) of the NPRM (77 FR 60075, October 2, 2012) as applicable part numbers for Model A330 series airplanes.

We disagree to include THSA P/N 47127-530 as there is no such part number.

We infer that the commenter meant to specify THSA P/N 47172-530. THSA P/N 47172-520 and P/N 47172-530 are not included in the MCAI. However, all necessary tasks for those THSA part numbers are contained in Airbus A330 Airworthiness Limitations Section (ALS) Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011; and Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011, and Revision 03, dated November 15, 2012. The FAA NPRMs to mandate these ALS Part 4 documents are pending at this time. Therefore, we have not changed this AD in this regard.

Request to Consider Another EASA AD

Corinne Dayde stated that she “Cannot see how EASA 2012-0061 is considered.”

We are considering addressing EASA AD 2012-0061R1, dated November 30, 2012, in a separate FAA AD. We have not changed this AD in this regard.

Conclusion

We reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously – and minor editorial changes. We have determined that these changes:

- Are consistent with the intent that was proposed in the NPRM (77 FR 60075, October 2, 2012) for correcting the unsafe condition; and

- Do not add any additional burden upon the public than was already proposed in the NPRM (77 FR 60075, October 2, 2012).

Costs of Compliance

We estimate that this AD will affect about 33 products of U.S. registry.

The actions that are required by AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005), and retained in this AD take up to 36 work-hours per product, at an average labor rate of \$85 per work-hour. Based on these figures, the estimated cost of the retained actions is up to \$3,060 per product.

We estimate that it will take about 2 work-hours per product to comply with the new basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$5,610, or \$170 per product.

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this AD.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by

prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through

Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005), and adding the following new AD:

2013-13-16 Airbus: Amendment 39-17504. Docket No. FAA-2012-1033; Directorate Identifier 2010-NM-266-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD supersedes AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005).

(c) Applicability

This AD applies to all Airbus Model A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; and Model A340-211, -212, -213, -311, -312, and -313 airplanes; certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 27: Flight Controls.

(e) Reason

This AD was prompted by several reports of disconnection of the transfer tube from the ball nut of the trimmable horizontal stabilizer actuator (THSA). We are issuing this AD to prevent degraded operation of the THSA, which could result in reduced controllability of the airplane.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Retained Modification or Replacement

This paragraph restates the requirements of paragraph (g) of AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005). Except for Model A330-223F and -243F airplanes: Within 24 months after May 4, 2005 (the effective date of AD 2005-07-04), modify the ball nut of each THSA by doing paragraph (g)(1) or (g)(2) of this AD, as applicable.

(1) For THSAs having part number (P/N) 47172: Modify the ball nut of the THSA, or replace the existing THSA with a serviceable part having P/N 47172-300; in accordance with Airbus Service Bulletin A330-27-3085 (for Model A330 series airplanes) or A340-27-4089 (for Model A340-313 series airplanes), both Revision 02, both dated September 5, 2002; as applicable.

Note 1 to paragraph (g)(1) of this AD: Airbus Service Bulletins A330-27-3085 and A340-27-4089, both Revision 02, both dated September 5, 2002, refer to TRW Aeronautical Systems Service Bulletin 47172-27-03, dated October 24, 2001 (which is not incorporated by reference in this AD), as additional guidance for accomplishing the modification of the ball nut of the THSA.

(2) For THSAs having P/N 47147-200, -210, -213, -300, -303, -350, or -400: Modify the ball nut of the THSA, or replace the existing THSA with an improved part having P/N 47147-500; as applicable; in accordance with Airbus Service Bulletin A330-27-3093 (for Model A330 series airplanes) or A340-27-4099 (for Model A340-200 and -300 series airplanes), both Revision 01, both dated September 5, 2002; as applicable.

Note 2 to paragraph (g)(2) of this AD: Airbus Service Bulletins A330-27-3093 and A340-27-4099, both Revision 01, both dated September 5, 2002, refer to TRW Aeronautical Systems Service Bulletin 47147-27-10, dated June 27, 2002 (which is not incorporated by reference in this AD), as additional guidance for accomplishing the modification of the ball nut of the THSA.

(h) Retained Previous/Concurrent Requirements

This paragraph restates the requirements of paragraph (h) of AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005).

(1) Except for Model A330-223F and -243F airplanes, prior to or concurrently with accomplishing the requirements of paragraph (g)(2) of this AD, do all of the actions specified in the Accomplishment Instructions of the applicable Airbus service bulletins listed in table 1 or 2 to paragraph (h)(1) of this AD, as applicable, in accordance with those service bulletins.

Note 3 to paragraph (h)(1) of this AD: Airbus Service Bulletin A330-27-3093, Revision 01, dated September 5, 2002, specifies that the actions in Airbus Service Bulletin A330-27-3052 be accomplished previously or concurrently. Airbus Service Bulletin A330-27-3052, Revision 03, dated December 5, 2001, specifies that the actions in Airbus Service Bulletins A330-27-3007, A330-27-3015, A330-27-3047, A330-27-3050, and A330-55-3020 be accomplished previously or concurrently.

Note 4 to paragraph (h)(1) of this AD: Airbus Service Bulletin A340-27-4099, Revision 01, dated September 5, 2002, specifies that the actions in Airbus Service Bulletin A340-27-4059 be accomplished previously or concurrently. Airbus Service Bulletin A340-27-4059, Revision 03, dated December 5, 2001, specifies that the actions in Airbus Service Bulletins A340-27-4007, A340-27-4025, A340-27-4054, A340-27-4057, and A340-55-4021 be accomplished previously or concurrently.

**Table 1 to Paragraph (h)(1) of This AD – Retained Previous/Concurrent
Requirements for Model A330 Series Airplanes**

Airbus Service Bulletin –	Revision Level –	Date –	Main Action –	Additional Source of Guidance (Not Incorporated by Reference in This AD) –
A330-27-3007	01	September 18, 1996	Replace rudder servo controls with modified parts	Samm Avionique Service Bulletin SC5300-27-24-01, dated April 15, 1994
A330-27-3015	— — —	June 7, 1995	Modify the control valve detent and the jamming protection device on the THSA	Lucas Aerospace Service Bulletin 47147-27-02, Revision 1, dated January 31, 1996
A330-27-3047	01	November 26, 1997	Replace hydraulic motors on the THSA with new parts	Lucas Aerospace Service Bulletin 47147-27-04, Revision 1, dated June 20, 1997
A330-27-3050	— — —	November 15, 1996	Replace mechanical input shaft for THSA with modified part	Lucas Aerospace Service Bulletin 47147-27-05, dated November 8, 1996
A330-27-3052	03	December 5, 2001	Replace THSA with a modified THSA	Lucas Aerospace Service Bulletin 47147-27-07, dated May 4, 1998
A330-55-3020	01	October 21, 1998	Perform a general visual inspection of the THSA screw jack fitting assembly for correct installation of a washer; and correctly install washer as applicable	None

Table 2 to Paragraph (h)(1) of This AD – Retained Previous/Concurrent Requirements for Model A340 Series Airplanes

Airbus Service Bulletin –	Revision Level –	Date –	Main Action –	Additional Source of Guidance (Not Incorporated by Reference in this AD) –
A340-27-4007	---	April 7, 1994	Replace hydraulic motors on the THSA with new parts	Lucas Aerospace Service Bulletin 47147-27-01, dated May 4, 1998
A340-27-4025	---	June 7, 1995	Modify the control valve detent and the jamming protection device on the THSA	Lucas Aerospace Service Bulletin 47147-27-02, Revision 1, dated January 31, 1996
A340-27-4054	01	November 26, 1997	Replace hydraulic motors on the THSA with new parts	Lucas Aerospace Service Bulletin 47147-27-04, Revision 1, dated June 20, 1997
A340-27-4057	---	November 15, 1996	Replace mechanical input shaft for THSA with modified part	Lucas Aerospace Service Bulletin 47147-27-05, dated November 8, 1996
A340-27-4059	03	December 5, 2001	Replace THSA with a modified THSA	Lucas Aerospace Service Bulletin 47147-27-07, dated May 4, 1998

Airbus Service Bulletin –	Revision Level –	Date –	Main Action –	Additional Source of Guidance (Not Incorporated by Reference in this AD) –
A340-55-4021	01	October 21, 1998	Perform a general visual inspection of the THSA screw jack fitting assembly for correct installation of a washer; and correctly install washer as applicable	None

(2) For the purposes of this AD, a general visual inspection is: A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to ensure visual access to all surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked.

(i) Retained Credit for Previous Actions

(1) This paragraph provides credit for the requirements of paragraph (g)(1) of this AD, if those actions were performed before May 4, 2005 (the effective date of AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005)), using Airbus Service Bulletin A330-27-3085 (for Model A330 series airplanes) or A340-27-4089 (for

Model A340-313 series airplanes), both Revision 01, both dated January 23, 2002 (which are not incorporated by reference in this AD), as applicable.

(2) This paragraph provides credit for the requirements of paragraphs (g)(2) of this AD, if those actions were performed before May 4, 2005 (the effective date of AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005)), using Airbus Service Bulletin A330-27-3093 (for Model A330 series airplanes) or A340-27-4099 (for Model A340-200 and -300 series airplanes), both dated June 27, 2002 (which are not incorporated by reference in this AD), as applicable.

(j) New Repetitive Greasing Procedure

(1) Within 700 flight hours after the effective date of this AD, or within 700 flight hours after the date of the last lubrication, whichever occurs later; and thereafter at intervals not to exceed 700 flight hours from the last lubrication of the trimmable horizontal stabilizer (THS) actuator ball screw nut: Perform Task 27.40.00/02, Lubrication of THS Actuator Ball Screw Nut, in accordance with Airbus A330 Maintenance Review Board Report (MRBR), Revision 12, dated July 1, 2010 (for Model A330 series airplanes); or Airbus A340 MRBR, Revision 12, dated July 1, 2010 (for Model A340 series airplanes); on all THSAs.

(2) For airplanes identified in paragraphs (j)(2)(i), (j)(2)(ii), and (j)(2)(iii) of this AD, as applicable, lubrication of the THS actuator ball screw nut performed at a threshold of 1,000 flight hours and a repetitive interval not exceeding 1,000 flight hours, in accordance with Task 274400-00002-1-E, Lubrication of the THSA Ball Nut, of Airbus A330 Airworthiness Limitations Section (ALS) Part 4 - Ageing Systems

Maintenance, Revision 03, dated September 9, 2011 (for Model A330 series airplanes); or Task 274400-00002-1-E, Lubrication of the THSA Ball Nut, of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011, or Revision 03, dated November 15, 2012 (for Model A340-200 and -300 series airplanes); is acceptable for compliance with the requirements of paragraph (j)(1) of this AD.

(i) Airplanes on which Airbus Modifications 52269, 56056, and 55780 have been done in production.

(ii) Model A330 series airplanes on which the actions specified in Airbus Mandatory Service Bulletin A330-27-3137, dated March 20, 2007, or Revision 01, dated December 6, 2007, or Revision 02, dated January 18, 2010; and Airbus Mandatory Service Bulletin A330-92-3046, Revision 04, dated July 16, 2010, or Revision 05, dated November 7, 2011; which are not incorporated by reference in this AD; have been done in service.

(iii) Model A340-200 and -300 series airplanes on which the actions specified in Airbus Mandatory Service Bulletin A340-27-4136, dated March 20, 2007, Revision 01, dated December 6, 2007, or Revision 02, dated February 24, 2010; and Airbus Mandatory Service Bulletin A340-92-4056, Revision 03, dated July 16, 2010; which are not incorporated by reference in this AD; have been done in service.

(k) New Repetitive Inspections of the Ball Screw Assembly and Corrective Actions

For airplanes other than those identified in paragraphs (l)(1), (l)(2), and (l)(3) of this AD: Do the applicable actions specified in paragraphs (k)(1) and (k)(2) of this AD

within 700 flight hours after the effective date of this AD, and repeat the inspection thereafter at intervals not to exceed 700 flight hours.

(1) For airplanes on which the actions specified in Airbus Mandatory Service Bulletin A330-27-3137, dated March 20, 2007, Revision 01, dated December 6, 2007, or Revision 02, dated January 18, 2010 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-27-4136, dated March 20, 2007, Revision 01, dated December 6, 2007, or Revision 02, dated February 24, 2010 (for Model A340-200 and -300 series airplanes); none of which are incorporated by reference in this AD; have been done: Do the applicable detailed inspection of the ball screw assembly for integrity of the primary and secondary load path and check the checkable shear pins (CSP), and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-27-3102, Revision 08, dated December 6, 2007 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-27-4107, Revision 08, dated December 6, 2007 (for Model A340-200 and -300 series airplanes); except as required by paragraph (m) of this AD. Do all applicable corrective actions before further flight.

(2) For airplanes on which the actions specified in Airbus Mandatory Service Bulletin A330-27-3137, dated March 20, 2007, Revision 01, dated December 6, 2007, or Revision 02, dated January 18, 2010 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-27-4136, dated March 20, 2007, Revision 01, dated December 6, 2007, or Revision 02, dated February 24, 2010 (for Model A340-200 and -300 series airplanes); none of which are incorporated by reference in this AD; have not

been done: Perform a detailed inspection of the ball screw assembly for integrity of the primary and secondary load path, and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-27-3102, Revision 08, dated December 6, 2007 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-27-4107, Revision 08, dated December 6, 2007 (for Model A340 series airplanes); except as required by paragraph (m) of this AD. Do all applicable corrective actions before further flight.

(l) Certain Airplanes Excluded From Paragraphs (k) and (n) of This AD

This paragraph specifies the airplanes excluded from the actions required by paragraphs (k) and (n) of this AD.

(1) Airplanes on which the actions specified in Airbus Modifications 52269, 56056, and 55780 have been done in production.

(2) Model A330 series airplanes on which Airbus Mandatory Service Bulletin A330-27-3137, dated March 20, 2007, Revision 01, dated December 6, 2007, or Revision 02, dated January 18, 2010; and Airbus Mandatory Service Bulletin A330-92-3046, Revision 04, dated July 16, 2010, or Revision 05, dated November 7, 2011; none of which are incorporated by reference in this AD; have been done in service.

(3) Model A340-200 and -300 series airplanes on which the actions specified in Airbus Mandatory Service Bulletin A340-27-4136, dated March 20, 2007, Revision 01, dated December 6, 2007, or Revision 02, dated February 24, 2010; and Airbus Mandatory Service Bulletin A340-92-4056, Revision 03, dated July 16, 2010; have been done in service.

(m) Service Information Exception

Where Airbus Mandatory Service Bulletin A330-27-3102, Revision 08, dated December 6, 2007 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-27-4107, Revision 08, dated December 6, 2007 (for Model A340 series airplanes); specify contacting Airbus for a damage assessment, this AD requires contacting the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA) (or its delegated agent); for required actions before further flight, and doing the specified actions within the times given.

(n) New Actions for Electronic Centralized Aircraft Monitor (ECAM) Fault Messages

For airplanes other than those identified in paragraphs (l)(1), (l)(2), and (l)(3) of this AD, if one of the "PRIM X PITCH FAULT" or "STAB CTL FAULT" messages is displayed on the ECAM associated with the "PITCH TRIM ACTR (1CS)" maintenance message, do the applicable detailed inspection and all applicable corrective actions specified in paragraph (k)(1) or (k)(2) of this AD, as applicable to airplane configuration, before further flight after the message is displayed on the ECAM.

(o) New Optional Method of Compliance

For airplanes having THSA P/N 47147-500, 47147-700, 47172-300, 47172-500, or 47172-510, accomplishing the repetitive actions specified in paragraph (o)(1) or (o)(2) of this AD, as applicable, is acceptable for compliance with the corresponding actions specified in paragraph (k)(1) or (k)(2) of this AD, as applicable.

(1) For Model A330 series airplanes: The repetitive actions specified in paragraphs (o)(1)(i) through (o)(1)(viii) of this AD.

(i) Task 274400-00001-1-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.

(ii) Task 274400-00001-1-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011.

(iii) Task 274400-00001-2-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.

(iv) Task 274400-00001-2-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011.

(v) Task 274400-00001-3-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.

(vi) Task 274400-00001-3-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011.

(vii) Task 274400-00001-4-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.

(viii) Task 274400-00001-4-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011.

(2) For Model A340-200 and -300 series airplanes: The repetitive actions specified in paragraphs (o)(2)(i) through (o)(2)(viii) of this AD.

(i) Task 274400-00001-1-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.

(ii) Task 274400-00001-1-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011.

(iii) Task 274400-00001-2-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.

(iv) Task 274400-00001-2-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011.

(v) Task 274400-00001-3-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.

(vi) Task 274400-00001-3-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011.

(vii) Task 274400-00001-4-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.

(viii) Task 274400-00001-4-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011.

(p) New Credit for Previous Actions

(1) For Model A300 series airplanes: This paragraph provides credit for the actions specified in paragraph (j) of this AD, if those actions were performed before the effective date of this AD using Task 27.40.00/02, Lubrication of THS Actuator Ball Screw Nut, of Airbus A330 MRBR, Revision 11, dated June 18, 2008 (which is not incorporated by reference in this AD).

(2) For Model A340 series airplanes: This paragraph provides credit for the actions specified in paragraph (j) of this AD, if those actions were performed before the

effective date of this AD using Task 27.40.00/02, Lubrication of THS Actuator Ball Screw Nut, of Airbus A340 MRBR, Revision 11, dated June 18, 2008 (which is not incorporated by reference in this AD).

(3) For Model A330 series airplanes: This paragraph provides credit for the inspections and corrective actions required by paragraph (k) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraphs (p)(3)(i) through (p)(3)(vi) of this AD (which are not incorporated by reference in this AD).

(i) Airbus Service Bulletin A330-27-3102, Revision 02, dated November 7, 2002.

(ii) Airbus Service Bulletin A330-27-3102, Revision 03, dated June 20, 2003.

(iii) Airbus Service Bulletin A330-27-3102, Revision 04, dated December 8, 2003.

(iv) Airbus Mandatory Service Bulletin A330-27-3102, Revision 05, dated July 7, 2004.

(v) Airbus Mandatory Service Bulletin A330-27-3102, Revision 06, dated December 16, 2005.

(vi) Airbus Mandatory Service Bulletin A330-27-3102, Revision 07, dated March 16, 2007.

(4) For Model A340 series airplanes: This paragraph provides credit for the inspections and corrective actions required by paragraph (k) of this AD, if those actions were performed before the effective date of this AD using the service information

specified in paragraphs (p)(4)(i) through (p)(4)(vi) of this AD (which are not incorporated by reference in this AD).

(i) Airbus Mandatory Service Bulletin A340-27-4107, Revision 02, dated September 23, 2002.

(ii) Airbus Service Bulletin A340-27-4107, Revision 03, dated December 4, 2002.

(iii) Airbus Mandatory Service Bulletin A340-27-4107, Revision 04, dated June 20, 2003.

(iv) Airbus Mandatory Service Bulletin A340-27-4107, Revision 05, dated December 8, 2003.

(v) Airbus Mandatory Service Bulletin A340-27-4107, Revision 06, dated December 16, 2005.

(vi) Airbus Mandatory Service Bulletin A340-27-4107, Revision 07, dated March 16, 2007.

(q) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind

Avenue SW., Renton, WA 98057-3356; telephone (425) 227-1138; fax (425) 227-1149.

Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(r) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2010-0192 (corrected), dated October 11, 2010; and EASA Airworthiness Directive 2010-0193 (corrected), dated October 11, 2010; for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov>.

(2) Service information identified in this AD that is not incorporated by reference may be obtained at the addresses specified in paragraphs (s)(5), (s)(6), and (s)(7) of this AD.

(s) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(3) The following service information was approved for IBR on [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(i) Airbus Mandatory Service Bulletin A330-27-3102, Revision 08, dated December 6, 2007.

(ii) Airbus Mandatory Service Bulletin A340-27-4107, Revision 08, dated December 6, 2007.

(iii) Task 27.40.00/02, Lubrication of Trimmable Horizontal Stabilizer (THS) Actuator Ball Screw Nut, of Airbus A330 Maintenance Review Board Report (MRBR), Revision 12, dated July 1, 2010.

(iv) Task 27.40.00/02, Lubrication of THS Actuator Ball Screw Nut, of Airbus A340 MRBR, Revision 12, dated July 1, 2010.

(v) A330 Airworthiness Limitations Section (ALS) Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009. Only the title page and Record of Revision of this document contain the revision level; no other page of the document contains this information. The title page of this document does not contain an issue date.

(vi) Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011. Only the title page and Record of Revision of this document contain the revision level; no other page of the document contains this information. The title page of this document does not contain an issue date.

(vii) Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009. Only the title page and Record of Revision of this document contains the revision level; no other page of this document contains this information. The title page of this document does not contain an issue date.

(viii) Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011. Only the title page and Record of Revision of this document contain the revision level; no other page of the document contains this information. The title page of this document does not contain an issue date.

(ix) Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated November 15, 2012. Only the title page and Record of Revision of this document contain the revision level; no other page of the document contains this information. The title page of this document does not contain an issue date.

(4) The following service information was approved for IBR on May 4, 2005 (60 FR 16104, March 30, 2005).

(i) Airbus Service Bulletin A330-27-3007, Revision 01, dated September 18, 1996.

(ii) Airbus Service Bulletin A330-27-3015, dated June 7, 1995.

- (iii) Airbus Service Bulletin A330-27-3047, Revision 01, dated November 26, 1997.
- (iv) Airbus Service Bulletin A330-27-3050, dated November 15, 1996.
- (v) Airbus Service Bulletin A330-27-3052, Revision 03, dated December 5, 2001.
- (vi) Airbus Service Bulletin A330-27-3085, Revision 02, dated September 5, 2002.
- (vii) Airbus Service Bulletin A330-27-3093, Revision 01, dated September 5, 2002.
- (viii) Airbus Service Bulletin A330-55-3020, Revision 01, dated October 21, 1998.
- (ix) Airbus Service Bulletin A340-27-4007, dated April 7, 1994.
- (x) Airbus Service Bulletin A340-27-4025, dated June 7, 1995.
- (xi) Airbus Service Bulletin A340-27-4054, Revision 01, dated November 26, 1997.
- (xii) Airbus Service Bulletin A340-27-4057, dated November 15, 1996.
- (xiii) Airbus Service Bulletin A340-27-4059, Revision 03, dated December 5, 2001.
- (xiv) Airbus Service Bulletin A340-27-4089, Revision 02, dated September 5, 2002.
- (xv) Airbus Service Bulletin A340-27-4099, Revision 01, dated September 5, 2002.
- (xvi) Airbus Service Bulletin A340-55-4021, Revision 01, October 21, 1998.

(5) For Airbus service information identified in this AD, contact Airbus SAS – Airworthiness Office – EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email airworthiness.A330-A340@airbus.com; Internet: <http://www.airbus.com>.

(6) For TRW Aeronautical Systems, SAMM Avionique, and Lucas Aerospace service information identified in this AD, contact Goodrich Corporation, Actuation Systems, Stafford Road, Fordhouses, Wolverhampton WV10 7EH, England; telephone +44 (0) 1902 624938; fax +44 (0) 1902 788100; email techpubs.wolverhampton@goodrich.com; Internet <http://www.goodrich.com/TechPubs>.

(7) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(8) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on June 21, 2013.

Jeffrey E. Duven,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

